ENGINEERING CHANGE PROPOSAL (SHORT FORM)

(See MIL-STD-481 for instructions)

DATE (YYYYMMDD) Form Approved
20050425 OMB No. 0704-0188

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	alid OMB control number. PL					ect to any penalty for	railing to con	ipiy witii a collectic	on or information if i	t does not		
1. ORIGINATOR NAME AND ADDRESS Ramanathan Ramaswamy 12350 Research Parkway						CONTRACT NUMBER AND LINE ITEM PROCURING CONTRACTING OFFICER						
												Orlando, FL 32
						CODE		TEL				
4. TITLE OF	-											
Modify FGS IC 5. ECP NUMB		REV	AMEND	6. CA	GE CODE	7. CLASS OF	ECP 8	B. JUST.COD	E 9.PRIOR	ITY		
MCC2004003		1	AWIEND	0. 07.		77 02/100 01		3.0001.002	High			
	ATIONS AFFECTE					IGS AFFECTE	D					
CAGE CODE	PMT 90-S002	TION / DOCUMENT N	0.	REV I	CAGE CODE		NI	JMBER		REV		
	1 W1 30 0002											
12. CONFIGU N/A	IRATION ITEM NON	MENCLATURE /	TYPE DESI	IGNATIO	ON / WEAPO	N SYSTEM CO	DDE	13. IN PRO	DUCTION			
11/7					YES	X NO						
14. LOWEST	ASSEMBLY AFFE	CTED										
NOMENCLATURE N/A		PART	T NO. NSN									
15. DESCRIP	TION OF CHANGE ragraph, figure, or	(Attach a docun	nent showi	ng [a] e	existing docu	ment paragra	ph, figure	e, or table an	d [b] modifie	∍d		
•			_	-	•							
	ice to the 3 rd parag	graph of section	1 3.2.3.2 at	out in	cluding a sel	ectable alteri	nate rout	ine for guid	ed missile			
routines.												
Table D2	. C. 11											
Add a note a	s follows: design shall includ	do o coloctoblo	altarnata r	outina	for Codo No	7 with the c	ama ana	oified neven	notor voluos	for		
	e IGS & FGS reg				ioi Code ino	. / with the s	ame spec	ciried paran	neter varues	101		
2000 in rung	e rob a rob regi	ardiess of the a	etuai range									
16. NEED FO	R CHANGE											
This change	will allow interop	orobility with a	umantly fi	oldod I	MII E (Dogio	CAW/E/MI	I EC II o	nd MII EC	VVI)			
This change	will allow interop	erability with c	currently if	leided i	WILE (Dasic	, SAWE/IVIII	LES II, a	iliu MILES	ΛΛΙ)			
17. EFFECT	ON ASSOCIATED E	QUIPMENT										
18. PRODUCT	TION EFFECTIVITY	BY SERIAL NU	MBER		19. EFFECT ON PRODUCTION DELIVERY SCHEDULE							
20.RECOMME	NDED RETROFIT I	EFFECTIVITY 2	21. ESTIMA	TED KI	T DELIVERY	SCHEDULE	22. ESTI	MATED COS	ST/SAVINGS			
23. SUBMITTI	NG ACTIVITY AUT	HORIZING SIGN	ATURE		23.a. TITLE							
Ramu, Ramswamy, Signed 11/8/2004					Fusions PEOCTN							
Ramu, Rams	wamy, Signed 11/8/	2004			Engineer, PE	OSTRI						
24. APPROV <i>A</i>	AL/DISAPPROVAL	a. RECOMMENDE	D X APPR	OVAL	DISAPPR	ROVAL						
b. APPROVAL	DECOTE	OVERNMENT ACTIVIT	ГҮ		SIGNATURE	DATE (*				ИDD)		
	PPROVED 12350 Research Parkway ISAPPROVED 0rlando, FL 32826-3276				Perry R. S	mith, LTC A	2004110	28				
d. <u>APP</u> ROVAL	e. GOVERNME				SIGNATURE	DATE (YYYYM						
APPROVE												
DISAPPRO	1VEI)				1				1			

15a. Existing document paragraph, figure, or table.

TABLE D2: MILES CODE PARAMETERS FOR GUIDED MISSILE ROUTINE

S Code No.	Range (meters)	IGS Transmit Time for DA (s)	IGS No. of Messages / second	FGS Transmit Time for DB (s)	FGS No. of Messages / Second	Light Weapon Hit Code No.	Delay D1 (ms)	No. of Light Weapon Words	Tracking Interval T(s)	No. of Messages for "Hit" Eval. (GK)
02		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
03		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
07	1000	2	8	1	16	27	121.3	128	15	22
07	1200	3	5.33	1	16	27	121.3	128	15	22
07	1500	3	5.33	2	8	27	121.3	128	15	22
07	1700	4	4	2	8	27	121.3	128	15	22
07	2000	5	3.2	2	8	27	121.3	128	15	22
07	2200	6	2.67	2	8	27	121.3	128	15	22
07	2400	7	2.29	2	8	27	121.3	128	15	22
07	2600	8 *	2 *	2*	8 *	27 *	121.3*	128 *	15	22
07	2800	9	1.78	2	8	27	121.3	128	15	22
07	3000	10	1.6	2	8	27	121.3	128	15	22
07	3300	11	1.45	2	8	27	121.3	128	15	22
07	3500	12	1.33	2	8	27	121.3	128	15	22
07	3750	13	1.23	2	8	27	121.3	128	15	22
08		4 *	4 *	2 *	8 *	27 *	121.3*	128 *	6 *	22

^{*} BASIC MILES: Note: Each missile message consists of eight (8) missile words.

Section 3.2.3.2, 3rd Paragraph

The two separate GMM sequences, IGS, and FGS, are formulated to accommodate the time of flight and the guidance characteristics of a particular guided missile weapon. Usually, the missile guidance is more critical near the end of the time of flight so that DA is larger than DB and the number, Ig, of GMMs in the IGS may be equal to or less than the number, Fg, of GMMs in the FGS. The MCC decoder must successfully decode a specified number, Gk, of GMMs from the combined IGS and FGS of the total Guided Missile Routine. Refer to Figure 4 (below) for Guided Missile Routine format and to Appendix D for GMR parameter values for a particular Guided Missile Weapon in the MILES system.

15b. Modified document paragraph, figure, or table with the change incorporated.

TABLE D2: MILES CODE PARAMETERS FOR GUIDED MISSILE ROUTINE

S Code No.	Range (meters)	IGS Transmit Time for DA (s)	IGS No. of Messages / second	FGS Transmit Time for DB (s)	FGS No. of Messages / Second	Light Weapon Hit Code No.	Delay D1 (ms)	No. of Light Weapon Words	Tracking Interval T(s)	No. of Messages for "Hit" Eval. (GK)
02		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
03		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
07**	1000	2	8	1	16	27	121.3	128	15	22
07**	1200	3	5.33	1	16	27	121.3	128	15	22
07**	1500	3	5.33	2	8	27	121.3	128	15	22
07**	1700	4	4	2	8	27	121.3	128	15	22
07**	2000	5	3.2	2	8	27	121.3	128	15	22
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07**	2400	7	2.29	2	8	27	121.3	128	15	22
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07**	3500	12	1.33	2	8	27	121.3	128	15	22
07**	3750	13	1.23	2	8	27	121.3	128	15	22
08		4 *	4 *	2 *	8 *	27 *	121.3*	128 *	6 *	22

Note: Each missile message consists of eight (8) missile words.

Section 3.2.3.2, Paragraph 3

The two separate GMM sequences, IGS, and FGS, are formulated to accommodate the time of flight and the guidance characteristics of a particular guided missile weapon. Usually, the missile guidance is more critical near the end of the time of flight so that DA is larger than DB and the number, Ig, of GMMs in the IGS may be equal to or less than the number, Fg, of GMMs in the FGS. The MCC decoder must successfully decode a specified number, Gk, of GMMs from the combined IGS and FGS of the total Guided Missile Routine. Refer to Figure 4 (below) for Guided Missile Routine format and to Appendix D for GMR parameter values for a particular Guided Missile Weapon in the MILES system. The design shall include a selectable alternate routine that has the same parameters for a 2600 m range (Basic MILES 10sec time of flight) for IGS and FGS regardless of the actual range. See Appendix D, Table D2.

^{*} BASIC MILES

^{**} Code No. 7: The design shall include a selectable alternate routine with the same specified parameter values for 2600 m (Basic MILES 10sec time of flight) range IGS & FGS regardless of the actual range.